

Claims

[c1] What is claimed is:

1. A backlight unit for changing lamps therein conveniently, the backlight unit comprising:
at least an optical sheet and a diffusion plate fixed to a backside of a display panel, the optical sheet and the diffusion plate forming an upper module with the display panel;
a bottom frame positioned below the upper module; and
a plurality of lamps positioned within the bottom frame;
wherein the backlight unit is capable of changing the lamps within the bottom frame after removal of the upper module above the bottom frame.

[c2] 2. The backlight unit of claim 1 wherein the optical sheet comprises at least a diffuser sheet and a prism sheet.

[c3] 3. The backlight unit of claim 1 wherein the bottom frame comprises a reflecting sheet surrounding the lamps.

[c4] 4. The backlight unit of claim 1 further comprising a plurality of buffer sheets positioned on portions of surfaces contacting with the lamps.

- [c5] 5. The backlight unit of claim 1 further comprising a top frame for fixing the upper module and the bottom frame.
- [c6] 6. The backlight unit of claim 5 wherein the top frame comprises a plurality of fixing elements for fixing the optical sheet and the diffusion plate to the backside of the display panel.
- [c7] 7. The backlight unit of claim 5 wherein the top frame and the bottom frame are fixed together using a plurality of fixing elements.
- [c8] 8. The backlight unit of claim 7 wherein the fixing elements comprise screws.
- [c9] 9. The backlight unit of claim 1 wherein the lamps comprise cold cathode fluorescent lamps.
- [c10] 10. The backlight unit of claim 1 wherein the lamps comprise external electrode fluorescent lamps.
- [c11] 11. The backlight unit of claim 10 wherein a conductive clip is positioned at an external electrode of the external electrode fluorescent lamps to simplify procedures of changing the lamps.